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NAS PENSACOLA
5090.3a

POST REMEDIAL INVESTIGATION SAMPLING ANALYSIS PLAN AT SITE 2 WITH TRANSMITTAL NAS PENSACOLA FL

8/17/1999

ENSAFE/ALLEN AND HOSHALL

ENSAFE

ENSAFE INC. ENVIRONMENTAL AND MANAGEMENT CONSULTANTS

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August 17, 1999

Mr. Bill Hill, Code 1851
SOUTHNAVFACENGCOM
2155 Eagle Drive, PO Box 190010
North Charleston, SC 29419-9010

Re: Post RI Sampling and Analysis Plan, Site 2, Naval Air Station Pensacola, Contract N62467-89-D-0318

Dear Mr. Hill:

EnSafe Inc. is pleased to submit the Post RI SAP for the above-referenced site. The SAP is presented in the format of a memorandum to be distributed to the NASP Tier 1 Team.

If you have any questions or comments regarding this SAP, please contact me at your earliest convenience.

Sincerely,

EnSafe Inc.

By: Brian Caldwell

cc: Allison Harris - EnSafe

MEMORANDUM

TO: Pensacola Tier 1 Team
Date: August 9, 1999
RE: POST- RI SAMPLING AND ANALYSIS PLAN
SITE 2 NAS PENSACOLA

INTRODUCTION

This Sampling and Analysis Plan has been developed to support the completion of a Record of Decision for Site 2 - Waterfront Sediments - at NAS Pensacola. Specifically, this plan is designed to complete the assessment of the nature and extent of contamination at this site, and to provide the data needed to execute a removal of contaminated sediment from the site, if necessary. The required work will entail the collection and analysis of subaqueous sediment cores and the preparation of a report detailing the work conducted, and the results of the data analyses. The additional data are required to refine the contamination at the site because of a) a significant change in site conditions since the initial RI sampling (ie., Hurricane Georges, and b) a data gap in the initial RI. Since the RI sampling, the site has experienced a hurricane and a number of tropical storms, which would suggest that sediment redistribution may have occurred. Additionally, in accordance with the approved SAP, the initial RI data assessed the upper 6 inches of sediment only; data regarding deeper intervals was not collected. The following text describes the work to be conducted during this sampling effort.

A complete history of the site, and a detailing of the RI sampling locations and methodologies, is included in the RI report (EnSafe, 1997). The overall goal of this sampling effort is " to conduct a one-time sampling event that will delineate the vertical/horizontal extent of contamination such that a removal may be planned and executed based on the sampling results. Confirmatory sampling after the dredging (if necessary) will provide the evidence for site closure".

SAMPLING

The brevity of this plan reflects the anticipation that USEPA's Environmental Services Division (ESD) will conduct the sampling. Sampling will be conducted in accordance with the SOPQAM.

Locations:

Figure 1 presents the proposed sampling locations for this effort. In the initial RI, contamination was defined using the calculation of a Hazard Index, or HI, for the various sampling locations. The RI identified an area of HIs greater than 10 located in the eastern portion of the site. This area provides the focus for this additional sampling, and is shown on Figure 1.

This plan calls for the collection of 15 sediment cores at locations within and outside of the HI>10 area. The assumption has been made that if a removal is to occur, it will encompass all sediment up to the seawall on the northern boundary of Site 2. Sampling locations, in reference to Figure 1 include:

Five locations within the HI>10 area: I0, H3, G2, F1, and F3.

9 locations outside of the HI>10 area: D-E1; D-E4; E-F2, H3.5, H4.5, J3., J-K2, K-L4, and K-L1.

One reference area: O4, which will be used to establish background concentrations. A single core will be located at O4, and two additional cores are to be located at opposing 25-feet radial distances from O4.

Methodology:

General - Core sampling will be conducted by ESD to the maximum depth possible given equipment limitations, but will not exceed approximately four feet in depth. This maximum depth was arrived at through an extrapolation of an assumed maximum depositional rate since the inception of waste disposal activities. This depth also factored in the cost-prohibitive nature of excavations conducted below 4 feet in depth. To the greatest extent possible, coring is to be conducted using a methodology that will minimize

the disturbance of the collected sediment column so that close interval lithologic descriptions can be executed.

Sampling Intervals - the following intervals from each of the sediment cores will be collected for laboratory analysis:

20-inches or less recovery: 0ne composite sample each for the upper half and lower half of recovered core length.

Greater than 20-inches recovery: One composite sample for the 0 to 6-inch interval, and the upper half and lower half of remaining (deeper than 6-inch) recovered core length (For example, a 30-inch recovery would be composite sampled from 0 to 6-inches, 6 to 18-inches, and 18 to 30-inches).

Analysis – In order to fully characterize the potential suite of contaminants at depth, each of the collected sample intervals within the HI>10 area are to be analyzed for the full TAL/TCL suite. The samples collected from the area outside of the HI>10 area are to be analyzed for TAL inorganics only. All chemical analyses of sediment are to achieve detection limits less than the appropriate sediment screening values, included as Attachment A. Additionally, the 0-6 inch sample will be analyzed for grain size and %Total Organic Carbon.

Additional considerations:
This plan has been developed with the intent of delineating contamination quickly at Site 2 for the purposes of scoping a potential removal action. Some screening techniques for inorganics can and may be strategically employed to further refine the sampling effort, but if used, these techniques need to be identified and their use described for prior approval of their use by the Tier 1 Team.

AIRCRAFT PARKING APRON

76

75

8

74

21

27

51

PARKING

73

3435

3434

2654

317

49

72

2669

71

SOUTH AVE.

45

52

707

PARKING

26

139

104

44

38A

67

38

1824

1824

100'

200'

300'

400'

500'

600'

700'

1200'

1300'

1400'

U T S R Q P O N M L K J I H G F E D C B A

REFERENCE LOCATIONS

354

1988

143A

46

177

452

178 WALL

PIER 303

CAT WALK & MOORINGS

N

LEGEND

- BUILDINGS & STRUCTURES
- BUILDINGS & STRUCTURES (PREVIOUSLY REMOVED)
- SEAPLANE RAMP
- STORMWATER OUTFALL
- OUTFALL
- SHALLOW MONITORING WELLS
- SAMPLE TRANSECT
- CORING LOCATION (FULL TAL)
- FULL TAL/TCL LOCATIONS

200 0 200

SCALE FEET

PENSACOLA BAY

SAMPLING AND ANALYSIS PLAN ADDENDUM
SITE 2
NAS–PENSACOLA
PENSACOLA, FLORIDA

FIGURE 1
SAMPING LOCATIONS

DWG DATE:05/12/99 | DWG NAME:0083G001

Attachment A

Sediment Quality Screening Criteria

Sediment Quality Screening Criteria

CAS #	Parameter	EPA SSVs	FDEP SQAGs	TEL	NASP Reference Concentration
Inorganics (mg/kg)					
7429-90-5	Aluminum (Al) [N]	NA	NA	NA	NA
7440-36-0	Antimony (Sb) [N]	12	NA	NA	NA
7440-38-2	Arsenic (As) [N]	7.24	7.24	NA	NA
7440-39-3	Barium (Ba) [N]	NA	NA	NA	NA
7440-41-7	Beryllium (Be) [C]	NA	NA	NA	NA
7440-43-9	Cadmium (Cd) [N]	1	0.676	NA	NA
7440-70-2	Calcium (Ca)	NA	NA	NA	NA
7440-47-3	Chromium (Cr) [N]	52.3	52.3	NA	NA
18540-29-9	Chromium (Hexavalent) [N]	NA	NA	NA	NA
7440-48-4	Cobalt (Co) [N]	NA	NA	NA	NA
7440-50-8	Copper (Cu) [N]	18.7	18.7	NA	NA
57-12-5	Cyanide (CN) [N]	NA	NA	NA	NA
7439-89-6	Iron (Fe) [N]	NA	NA	NA	NA
7439-92-1	Lead (Pb)	30.2	30.2	NA	NA
7439-95-4	Magnesium (Mg)	NA	NA	NA	NA
7439-96-5	Manganese (Mn) [N]	NA	NA	NA	NA
7439-97-6	Mercury (Hg) [N]	0.13	0.13	NA	NA
7440-02-0	Nickel (Ni) [N]	15.9	15.9	NA	NA
7440-09-7	Potassium (K)	NA	NA	NA	NA
7782-49-2	Selenium (Se) [N]	NA	NA	NA	NA

Sediment Quality Screening Criteria

CAS #	Parameter	EPA SSVs	FDEP SQAGs	TEL	NASP Reference Concentration
Inorganics (mg/kg)					
7440-22-4	Silver (Ag) [N]	2	0.733	NA	NA
7440-23-5	Sodium (Na)	NA	NA	NA	NA
7440-28-0	Thallium (Tl)	NA	NA	NA	NA
7440-31-5	Tin (Sn) [N]	NA	NA	NA	NA
7440-62-2	Vanadium (V) [N]	NA	NA	NA	NA
7440-66-6	Zinc (Zn) [N]	124	124	NA	NA

Sediment Quality Screening Criteria

CAS #	Parameter	EPA SSVs	FDEP SQAGs	TEL	NASP Reference Concentration
Pesticides (µg/kg)					
93-76-5	2,4,5-Trichlorophenoxyacetic ac [N]	NA	NA	NA	NA
94-75-7	2,4-Dichlorophenoxyacetic Acid [N]	NA	NA	NA	NA
93-72-1	2-(2,4,5-Trichlorophenoxy)propi [N]	NA	NA	NA	NA
72-54-8	4,4'-DDD [C]	3.3	1.22	NA	NA
72-55-9	4,4'-DDE [C]	3.3	2.07	NA	NA
50-29-3	4,4'-DDT [C]	3.3	1.19	NA	NA
94-82-6	4-(2,4-Dichlorophenoxy)butyric [N]	NA	NA	NA	NA
309-00-2	Aldrin [C]	NA	NA	NA	NA
12674-11-2	Aroclor-1016 [N]	33	21.6	NA	NA
11104-28-2	Aroclor-1221 [C]	21.6	67	NA	NA
11141-16-5	Aroclor-1232 [C]	21.6	33	NA	NA
53469-21-9	Aroclor-1242 [C]	21.6	33	NA	NA
12672-29-6	Aroclor-1248 [C]	21.6	33	NA	NA
11097-69-1	Aroclor-1254 [N]	21.6	33	NA	NA
11096-82-5	Aroclor-1260 [C]	21.6	33	NA	NA
57-74-9	Chlordane [C]	1.7	2.26	NA	NA
510-15-6	Chlorobenzilate [C]	NA	NA	NA	NA
2303-16-4	Diallate [C]	NA	NA	NA	NA
60-57-1	Dieldrin [C]	3.3	0.715	NA	NA
60-51-5	Dimethoate [N]	NA	NA	NA	NA

Sediment Quality Screening Criteria

CAS #	Parameter	EPA SSVs	FDEP SQAGs	TEL	NASP Reference Concentration
Pesticides (µg/kg)					
88-85-7	Dinoseb [N]	NA	NA	NA	NA
298-04-4	Disulfoton [N]	NA	NA	NA	NA
959-98-8	Endosulfan I [N]	NA	NA	NA	NA
33213-65-9	Endosulfan II [N]	NA	NA	NA	NA
1031-07-8	Endosulfan sulfate [N]	NA	NA	NA	NA
72-20-8	Endrin [N]	3.3	NA	NA	NA
7421-93-4	Endrin aldehyde [N]	3.3	NA	NA	NA
53494-70-5	Endrin ketone [N]	3.3	NA	NA	NA
52-85-7	Famphur	NA	NA	NA	NA
76-44-8	Heptachlor [C]	NA	NA	NA	NA
1024-57-3	Heptachlor epoxide [C]	NA	NA	NA	NA
465-73-6	Isodrin [P]	NA	NA	NA	NA
143-50-0	Kepone [C]	NA	NA	NA	NA
72-43-5	Methoxychlor [N]	NA	NA	NA	NA
298-00-0	Methyl parathion [N]	NA	NA	NA	NA
126-68-1	O,O,O-Triethylphosphorothioate	NA	NA	NA	NA
56-38-2	Parathion [N]	NA	NA	NA	NA
298-02-2	Phorate [N]	NA	NA	NA	NA
3689-24-5	Tetraethyldithiopyrophosphate [N]	NA	NA	NA	NA
297-97-2	Thionazin	NA	NA	NA	NA

Sediment Quality Screening Criteria

CAS #	Parameter	EPA SSVs	FDEP SQAGs	TEL	NASP Reference Concentration
Pesticides (µg/kg)					
8001-35-2	Toxaphene [C]	NA	NA	NA	NA
319-84-6	alpha-BHC [C]	NA	NA	NA	NA
5103-71-9	alpha-Chlordane [C]	NA	NA	NA	NA
319-85-7	beta-BHC [C]	NA	NA	NA	NA
319-86-8	delta-BHC [C]	NA	NA	NA	NA
58-89-9	gamma-BHC (Lindane) [C]	3.3	0.32	NA	NA
5103-74-2	gamma-Chlordane [C]	NA	NA	NA	NA

Sediment Quality Screening Criteria

CAS #	Parameter	EPA SSVs	FDEP SQAGs	TEL	NASP Reference Concentration
Semivolatiles (µg/kg)					
634-66-2	1,2,3,4-Tetrachlorobenzene	NA	NA	NA	NA
634-90-2	1,2,3,5-Tetrachlorobenzene	NA	NA	NA	NA
87-61-6	1,2,3-Trichlorobenzene	NA	NA	NA	NA
95-94-3	1,2,4,5-Tetrachlorobenzene N	NA	NA	NA	NA
120-82-1	1,2,4-Trichlorobenzene	NA	NA	NA	NA
95-50-1	1,2-Dichlorobenzene N	NA	NA	NA	NA
122-66-7	1,2-Diphenylhydrazine C	NA	NA	NA	NA
108-70-3	1,3,5-Trichlorobenzene	NA	NA	NA	NA
99-35-4	1,3,5-Trinitrobenzene N	NA	NA	NA	NA
541-73-1	1,3-Dichlorobenzene N	NA	NA	NA	NA
99-65-0	1,3-Dinitrobenzene N	NA	NA	NA	NA
106-46-7	1,4-Dichlorobenzene C	NA	NA	NA	NA
130-15-4	1,4-Naphthoquinone	NA	NA	NA	NA
90-13-1	1-Chloronapthalene	NA	NA	NA	NA
90-12-0	1-Methylnaphthalene N	NA	NA	NA	NA
134-32-7	1-Naphthylamine	NA	NA	NA	NA
108-60-1	2,2'-oxybis(1-Chloropropane)	NA	NA	NA	NA
58-90-2	2,3,4,6-Tetrachlorophenol N	NA	NA	NA	NA
95-95-4	2,4,5-Trichlorophenol N	NA	NA	NA	NA
88-06-2	2,4,6-Trichlorophenol C	NA	NA	NA	NA

Sediment Quality Screening Criteria

CAS #	Parameter	EPA SSVs	FDEP SQAGs	TEL	NASP Reference Concentration
Semivolatiles (µg/kg)					
120-83-2	2,4-Dichlorophenol [N]	NA	NA	NA	NA
105-67-9	2,4-Dimethylphenol [N]	NA	NA	NA	NA
51-28-5	2,4-Dinitrophenol [N]	NA	NA	NA	NA
121-14-2	2,4-Dinitrotoluene [N]	NA	NA	NA	NA
87-65-0	2,6-Dichlorophenol [N]	NA	NA	NA	NA
606-20-2	2,6-Dinitrotoluene [N]	NA	NA	NA	NA
91-58-7	2-Chloronaphthalene [N]	NA	NA	NA	NA
95-57-8	2-Chlorophenol [N]	NA	NA	NA	NA
99-55-8	2-Methyl-5-nitroaniline [C]	NA	NA	NA	NA
95-53-4	2-Methylaniline [C]	NA	NA	NA	NA
636-21-5	2-Methylaniline hydrochloride [C]	NA	NA	NA	NA
91-57-6	2-Methylnaphthalene [N]	330	20.2	NA	NA
95-48-7	2-Methylphenol (o-Cresol) [N]	NA	NA	NA	NA
91-59-8	2-Naphthylamine [C]	NA	NA	NA	NA
88-74-4	2-Nitroaniline [N]	NA	NA	NA	NA
88-75-5	2-Nitrophenol [N]	NA	NA	NA	NA
109-06-8	2-Picoline	NA	NA	NA	NA
91-94-1	3,3'-Dichlorobenzidine [C]	NA	NA	NA	NA
119-90-4	3,3'-Dimethoxybenzidine [C]	NA	NA	NA	NA
119-93-7	3,3'-Dimethylbenzidine [C]	NA	NA	NA	NA

Sediment Quality Screening Criteria

CAS #	Parameter	EPA SSVs	FDEP SQAGs	TEL	NASP Reference Concentration
Semivolatiles (µg/kg)					
56-49-5	3-Methylcholanthrene	NA	NA	NA	NA
108-39-4	3-Methylphenol (m-Cresol)	NA	NA	NA	NA
99-09-2	3-Nitroaniline [N]	NA	NA	NA	NA
101-14-4	4,4'-Methylene bis(2-chloroanil [C]	NA	NA	NA	NA
534-52-1	4,6-Dinitro-2-methylphenol	NA	NA	NA	NA
92-67-1	4-Aminobiphenyl	NA	NA	NA	NA
101-55-3	4-Bromophenyl-phenylether [N]	NA	NA	NA	NA
59-50-7	4-Chloro-3-methylphenol	NA	NA	NA	NA
106-47-8	4-Chloroaniline [N]	NA	NA	NA	NA
7005-72-3	4-Chlorophenyl-phenylether	NA	NA	NA	NA
106-44-5	4-Methylphenol (p-Cresol) [N]	NA	NA	NA	NA
100-01-6	4-Nitroaniline [N]	NA	NA	NA	NA
100-02-7	4-Nitrophenol [N]	NA	NA	NA	NA
56-57-5	4-Nitroquinoline 1-oxide	NA	NA	NA	NA
57-97-6	7,12-Dimethybenz(a)anthracene [C]	NA	NA	NA	NA
83-32-9	Acenaphthene [N]	330	6.71	NA	NA
208-96-8	Acenaphthylene [N]	330	5.87	NA	NA
53-96-3	Acetamidofluorene	NA	NA	NA	NA
98-86-2	Acetophenone [N]	NA	NA	NA	NA
62-53-3	Aniline [C]	NA	NA	NA	NA

Sediment Quality Screening Criteria

CAS #	Parameter	EPA SSVs	FDEP SQAGs	TEL	NASP Reference Concentration
Semivolatiles (µg/kg)					
120-12-7	Anthracene [N]	330	46.9	NA	NA
140-57-8	Aramite [C]	NA	NA	NA	NA
103-33-3	Azobenzene [C]	NA	NA	NA	NA
98-87-3	Benzal chloride	NA	NA	NA	NA
92-87-5	Benzidine [C]	NA	NA	NA	NA
56-55-3	Benzo(a)anthracene	330	74.8	NA	NA
50-32-8	Benzo(a)pyrene	330	88.8	NA	NA
205-99-2	Benzo(b)fluoranthene	NA	NA	NA	NA
191-24-2	Benzo(g,h,i)perylene [N]	NA	NA	NA	NA
207-08-9	Benzo(k)fluoranthene	NA	NA	NA	NA
65-85-0	Benzoic acid [N]	NA	NA	NA	NA
98-07-7	Benzotrichloride [C]	NA	NA	NA	NA
100-51-6	Benzyl alcohol [N]	NA	NA	NA	NA
39638-32-9	Bis(2-Chloroisopropyl)Ether [C]	NA	NA	NA	NA
85-68-7	Butylbenzylphthalate [N]	NA	NA	NA	NA
86-74-8	Carbazole	NA	NA	NA	NA
218-01-9	Chrysene	330	108	NA	NA
6055-19-2	Cyclophosphamide	NA	NA	NA	NA
84-74-2	Di-n-butylphthalate [N]	NA	NA	NA	NA
117-84-0	Di-n-octyl phthalate [N]	NA	NA	NA	NA

Sediment Quality Screening Criteria

CAS #	Parameter	EPA SSVs	FDEP SQAGs	TEL	NASP Reference Concentration
Semivolatiles (µg/kg)					
53-70-3	Dibenz(a,h)anthracene	330	6.22	NA	NA
224-42-0	Dibenzo(a,j)acridine	NA	NA	NA	NA
132-64-9	Dibenzofuran [N]	NA	NA	NA	NA
84-66-2	Diethylphthalate [N]	NA	NA	NA	NA
131-11-3	Dimethyl phthalate [N]	NA	NA	NA	NA
122-39-4	Diphenylamine [N]	NA	NA	NA	NA
97-63-2	Ethyl methacrylate [N]	NA	NA	NA	NA
62-50-0	Ethyl methanesulfonate	NA	NA	NA	NA
206-44-0	Fluoranthene [N]	330	113	NA	NA
86-73-7	Fluorene [N]	330	21.2	NA	NA
118-74-1	Hexachlorobenzene [C]	NA	NA	NA	NA
87-68-3	Hexachlorobutadiene [C]	NA	NA	NA	NA
77-47-4	Hexachlorocyclopentadiene [N]	NA	NA	NA	NA
67-72-1	Hexachloroethane [C]	NA	NA	NA	NA
70-30-4	Hexachlorophene [N]	NA	NA	NA	NA
1888-71-7	Hexachloropropene	NA	NA	NA	NA
193-39-5	Indeno(1,2,3-cd)pyrene	NA	NA	NA	NA
78-59-1	Isophorone [C]	NA	NA	NA	NA
120-58-1	Isosafrole	NA	NA	NA	NA
91-80-5	Methapyrilene	NA	NA	NA	NA

Sediment Quality Screening Criteria

CAS #	Parameter	EPA SSVs	FDEP SQAGs	TEL	NASP Reference Concentration
Semivolatiles (µg/kg)					
80-62-6	Methyl methacrylate [N]	NA	NA	NA	NA
66-27-3	Methyl methanesulfonate	NA	NA	NA	NA
10595-95-6	N-Nitroso-N-methylethylamine [C]	NA	NA	NA	NA
621-64-7	N-Nitroso-di-n-propylamine [C]	NA	NA	NA	NA
924-16-3	N-Nitrosodi-n-butylamine [C]	NA	NA	NA	NA
55-18-5	N-Nitrosodiethylamine [C]	NA	NA	NA	NA
62-75-9	N-Nitrosodimethylamine [C]	NA	NA	NA	NA
86-30-6	N-Nitrosodiphenylamine [C]	NA	NA	NA	NA
59-89-2	N-Nitrosomorpholine	NA	NA	NA	NA
100-75-4	N-Nitrosopiperidine	NA	NA	NA	NA
930-55-2	N-Nitrosopyrrolidine [C]	NA	NA	NA	NA
91-20-3	Naphthalene [N]	330	34.6	NA	NA
98-95-3	Nitrobenzene [N]	NA	NA	NA	NA
123-63-7	Paraldehyde	NA	NA	NA	NA
608-93-5	Pentachlorobenzene [N]	NA	NA	NA	NA
76-01-7	Pentachloroethane	NA	NA	NA	NA
82-68-8	Pentachloronitrobenzene [C]	NA	NA	NA	NA
87-86-5	Pentachlorophenol [C]	NA	NA	NA	NA
62-44-2	Phenacetin	NA	NA	NA	NA
85-01-8	Phenanthrene [N]	330	86.7	NA	NA

Sediment Quality Screening Criteria

CAS #	Parameter	EPA SSVs	FDEP SQAGs	TEL	NASP Reference Concentration
Semivolatiles (µg/kg)					
108-95-2	Phenol [N]	NA	NA	NA	NA
23950-58-5	Pronamide [N]	NA	NA	NA	NA
129-00-0	Pyrene [N]	330	153	NA	NA
110-86-1	Pyridine [N]	NA	NA	NA	NA
94-59-7	Safrole	NA	NA	NA	NA
122-09-8	alpha, alpha-Dimethylphenethyla	NA	NA	NA	NA
111-91-1	bis(2-Chloroethoxy)methane	NA	NA	NA	NA
111-44-4	bis(2-Chloroethyl)ether [C]	NA	NA	NA	NA
117-81-7	bis(2-Ethylhexyl)phthalate (BEH [C]	182	182	NA	NA
60-11-7	p-Dimethylaminoazobenzene	NA	NA	NA	NA
106-50-3	p-Phenylenediamine [N]	NA	NA	NA	NA

Sediment Quality Screening Criteria

CAS #	Parameter	EPA SSVs	FDEP SQAGs	TEL	NASP Reference Concentration
Volatiles (µg/kg)					
630-20-6	1,1,1,2-Tetrachloroethane C	NA	NA	NA	NA
811-97-2	1,1,1,2-Tetrafluoroethane	NA	NA	NA	NA
71-55-6	1,1,1-Trichloroethane N	NA	NA	NA	NA
354-58-5	1,1,1-trichlora-2,2,2-triflorom	NA	NA	NA	NA
79-34-5	1,1,2,2-Tetrachloroethane C	NA	NA	NA	NA
76-13-1	1,1,2-Trichloro-1,2,2- trifluor N	NA	NA	NA	NA
79-00-5	1,1,2-Trichloroethane C	NA	NA	NA	NA
598-77-6	1,1,2-Trichloropropane N	NA	NA	NA	NA
75-34-3	1,1-Dichloroethane N	NA	NA	NA	NA
75-35-4	1,1-Dichloroethylene C	NA	NA	NA	NA
75-37-6	1,1-Difluoroethane	NA	NA	NA	NA
96-18-4	1,2,3-Trichloropropane C	NA	NA	NA	NA
96-19-5	1,2,3-Trichloropropene N	NA	NA	NA	NA
615-54-3	1,2,4-Tribromobenzene N	NA	NA	NA	NA
120-82-1	1,2,4-Trichlorobenzene N	NA	NA	NA	NA
95-63-6	1,2,4-Trimethylbenzene N	NA	NA	NA	NA
96-12-8	1,2-Dibromo-3-chloropropane C	NA	NA	NA	NA
106-93-4	1,2-Dibromoethane C	NA	NA	NA	NA
107-06-2	1,2-Dichloroethane C	NA	NA	NA	NA
540-59-0	1,2-Dichloroethene (total) N	NA	NA	NA	NA

Sediment Quality Screening Criteria

CAS #	Parameter	EPA SSVs	FDEP SQAGs	TEL	NASP Reference Concentration
Volatiles (µg/kg)					
156-59-2	1,2-Dichloroethylene (cis) [N]	NA	NA	NA	NA
156-60-5	1,2-Dichloroethylene (trans) [N]	NA	NA	NA	NA
78-87-5	1,2-Dichloropropane [C]	NA	NA	NA	NA
108-67-8	1,3,5-Trimethylbenzene [N]	NA	NA	NA	NA
106-99-0	1,3-Butadiene	NA	NA	NA	NA
542-75-6	1,3-Dichloropropene [C]	NA	NA	NA	NA
106-37-6	1,4-Dibromobenzene [N]	NA	NA	NA	NA
764-41-0	1,4-Dichloro-2-butene	NA	NA	NA	NA
123-91-1	1,4-Dioxane [C]	NA	NA	NA	NA
75-68-3	1-Chloro-1,1-difluoroethane	NA	NA	NA	NA
109-69-3	1-Chlorobutane [N]	NA	NA	NA	NA
78-93-3	2-Butanone (MEK) [N]	NA	NA	NA	NA
126-99-8	2-Chloro-1,3-butadiene [N]	NA	NA	NA	NA
110-75-8	2-Chloroethyl vinyl ether [N]	NA	NA	NA	NA
75-29-6	2-Chloropropane	NA	NA	NA	NA
591-78-6	2-Hexanone	NA	NA	NA	NA
101-68-8	4,4'-Methylenediphenyl isocyana	NA	NA	NA	NA
108-10-1	4-Methyl-2-Pentanone (MIBK) [N]	NA	NA	NA	NA
67-64-1	Acetone [N]	NA	NA	NA	NA
75-05-8	Acetonitrile [N]	NA	NA	NA	NA

Sediment Quality Screening Criteria

CAS #	Parameter	EPA SSVs	FDEP SQAGs	TEL	NASP Reference Concentration
Volatiles (µg/kg)					
107-02-8	Acrolein [N]	NA	NA	NA	NA
107-13-1	Acrylonitrile [C]	NA	NA	NA	NA
107-05-1	Allyl chloride [N]	NA	NA	NA	NA
100-52-7	Benzaldehyde [N]	NA	NA	NA	NA
71-43-2	Benzene [C]	NA	NA	NA	NA
100-44-7	Benzyl chloride [C]	NA	NA	NA	NA
542-88-1	Bis(chloromethyl)ether [C]	NA	NA	NA	NA
75-27-4	Bromodichloromethane [C]	NA	NA	NA	NA
593-60-2	Bromoethene	NA	NA	NA	NA
75-25-2	Bromoform [C]	NA	NA	NA	NA
74-83-9	Bromomethane [N]	NA	NA	NA	NA
56-23-5	Carbon Tetrachloride [C]	NA	NA	NA	NA
75-15-0	Carbon disulfide [N]	NA	NA	NA	NA
108-90-7	Chlorobenzene [N]	NA	NA	NA	NA
75-45-6	Chlorodifluoromethane	NA	NA	NA	NA
75-00-3	Chloroethane [N]	NA	NA	NA	NA
67-66-3	Chloroform [C]	NA	NA	NA	NA
74-87-3	Chloromethane [C]	NA	NA	NA	NA
1476-11-5	Cis-1,4-Dichloro-2-butene	NA	NA	NA	NA
4170-30-3	Crotonaldehyde	NA	NA	NA	NA

Sediment Quality Screening Criteria

CAS #	Parameter	EPA SSVs	FDEP SQAGs	TEL	NASP Reference Concentration
Volatiles (µg/kg)					
108-94-1	Cyclohexanone [N]	NA	NA	NA	NA
1163-19-5	Decabromodiphenyl ether [N]	NA	NA	NA	NA
124-48-1	Dibromochloromethane [C]	NA	NA	NA	NA
75-71-8	Dichlorodifluoromethane [N]	NA	NA	NA	NA
77-73-6	Dicyclopentadiene [N]	NA	NA	NA	NA
107-12-0	Ethyl cyanide	NA	NA	NA	NA
60-29-7	Ethyl ether [N]	NA	NA	NA	NA
100-41-4	Ethylbenzene [N]	NA	NA	NA	NA
87-82-1	Hexabromobenzene [N]	NA	NA	NA	NA
78-83-1	Isobutanol [N]	NA	NA	NA	NA
126-98-7	Methacrylonitrile [N]	NA	NA	NA	NA
74-88-4	Methyl iodide	NA	NA	NA	NA
98-83-9	Methyl styrene (alpha) [N]	NA	NA	NA	NA
25013-15-4	Methyl styrene (mixture) [N]	NA	NA	NA	NA
1634-04-4	Methyl tertbutyl ether (MTBE) [N]	NA	NA	NA	NA
74-95-3	Methylene bromide [N]	NA	NA	NA	NA
75-09-2	Methylene chloride [C]	NA	NA	NA	NA
100-42-5	Styrene [N]	NA	NA	NA	NA
127-18-4	Tetrachloroethene [C]	NA	NA	NA	NA
109-99-9	Tetrahydrofuran	NA	NA	NA	NA

Sediment Quality Screening Criteria

CAS #	Parameter	EPA SSVs	FDEP SQAGs	TEL	NASP Reference Concentration
Volatiles (µg/kg)					
108-88-3	Toluene [N]	NA	NA	NA	NA
79-01-6	Trichloroethene [C]	NA	NA	NA	NA
75-69-4	Trichlorofluoromethane [N]	NA	NA	NA	NA
108-05-4	Vinyl acetate [N]	NA	NA	NA	NA
75-01-4	Vinyl chloride [C]	NA	NA	NA	NA
1330-20-7	Xylene (Total) [N]	NA	NA	NA	NA
10061-01-5	cis-1,3-Dichloropropene [C]	NA	NA	NA	NA
99-08-1	m-Nitrotoluene [N]	NA	NA	NA	NA
108-38-3	m-Xylene [N]	NA	NA	NA	NA
110-54-3	n-Hexane [N]	NA	NA	NA	NA
88-73-3	o-Chloronitrobenzene [C]	NA	NA	NA	NA
95-49-8	o-Chlorotoluene [N]	NA	NA	NA	NA
88-72-2	o-Nitrotoluene [N]	NA	NA	NA	NA
95-47-6	o-Xylene [N]	NA	NA	NA	NA
5216-25-1	p,a,a,a-Tetrachlorotoluene [C]	NA	NA	NA	NA
100-00-5	p-Chloronitrobenzene [C]	NA	NA	NA	NA
99-99-0	p-Nitrotoluene [N]	NA	NA	NA	NA
106-42-3	p-Xylene	NA	NA	NA	NA
135-98-8	sec-Butylbenzene [N]	NA	NA	NA	NA
104-51-8	tert-Butylbenzene [N]	NA	NA	NA	NA

Sediment Quality Screening Criteria

CAS #	Parameter	EPA SSVs	FDEP SQAGs	TEL	NASP Reference Concentration
Volatiles (µg/kg)					
10061-02-6	trans-1,3-Dichloropropene [C]	NA	NA	NA	NA
110-57-6	trans-1,4-Dichloro-2-butene	NA	NA	NA	NA